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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/522,334   | 03/09/2000  | Ry Wagner            | 6616-72620-03       | 3299             |
| 57622 7590 05/15/2007<br>KLARQUIST SPARKMAN, LLP<br>121 S.W. SALMON STREET<br>SUITE 1600<br>PORTLAND, OR 97204 |             |                      |                     |                  |
| EXAMINER<br>KRUSE, DAVID H   |             |                      |                     |                  |
| ART UNIT PAPER NUMBER<br>1638  |             |                      |                     |                  |
| MAIL DATE DELIVERY MODE<br>05/15/2007 PAPER  |             |                      |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/522,334             | WAGNER ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | David H. Kruse         | 1638                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007 and 24 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-10, 16, 17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-10, 16, 17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **STATUS OF THE APPLICATION**

1. This Office action is in response to the Amendment filed 23 February 2007 and the Remarks filed on 24 October 2005.
2. The objection to claims 2 and 16 has been obviated by Applicants' amendments.
3. The rejection of claims 21 and 22 under 35 U.S.C. § 112, second paragraph, has been overcome by Applicants' amendment.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

5. Claims 2 and 19 remain rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is repeated for the reason of record as set forth in the last Office action mailed 8 October 2004. Applicant's arguments filed 24 October 2005 have been fully considered but they are not persuasive.

Applicants argue that the claimed gene constructs are characterized by functional features that produce a variety of desired traits in fruit-bearing plants (page 4 lines 10-21). Applicants argue they have also defined what is meant by "heterologous" gene constructs on page 6, lines 33-39 and have provided teachings on isolation of genes of interest in the Examples provided (page 5, last paragraph of the Remarks).

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These arguments are not found to be persuasive. The method of claim 20, upon which the instant claims depend, is directed to a method of isolating a gene, the method does not adequately describe what gene is isolated, and is required to practice the method of the instantly rejected claims.

***Claim Rejections - 35 USC § 102***

6. Claims 8, 9, 10, 17 and 20 remain rejected under 35 U.S.C. § 102(b) as being anticipated by Jones *et al* (1994, Science 266:789-793) taken with the evidence of Jones *et al* (1992, Proceedings of the Royal Society of Edinburgh, 99B (3/4) pages 107-119). This rejection is repeated for the reason of record as set forth in the last Office action mailed 8 October 2004. Applicant's arguments filed 24 October 2005 have been fully considered but they are not persuasive.

Applicants argue that one of skill in the art at the time of Applicant's invention would work as an enhancer, if the transposon functioned to disrupt a repressor region .... ". Applicants argue that contrary to the Examiner's assertion, the term "enhancer" is not subjective, but rather has a well-defined meaning within the art of transgenic plants and refers to a DNA regulatory sequence that influences transcription of a structural gene and that Jones *et al* (1994) do not disclose a plant cell expression vector that comprises an enhancer (page 6, 3<sup>rd</sup> paragraph of the Remarks). These arguments are not found to be persuasive because disruption of a repressor region would "enhance" expression of the associated gene, hence the transposon would function as an enhancer. The specification at page 5, lines 39-41, defines "enhancer" as "As used herein, the terms "enhancer" and "element which functions to enhance gene

expression" may be used interchangeably and refer to any sequence which activates transcription of plant DNA from a nearby promoter.". Since the transposon of Jones *et al* functions to activate transcription of plant DNA from a nearby promoter, than the disclosure of Jones *et al* meet the definition set forth in the instant application.

***Claim Rejections - 35 USC § 103***

7. Claims 2-10, 16, 17 and 19-23 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Walden *et al* 1994 (Plant Molecular Biology 26:1521-1528) in view of Jones *et al* 1992 (Proceedings of the Royal Society of Edinburgh, 99B (3/4) pages 107-119). This rejection is repeated for the reason of record as set forth in the last Office action mailed 8 October 2004. Applicant's arguments filed 24 October 2005 have been fully considered but they are not persuasive.

Applicants argue that Walden *et al.* is a review article summarizing studies that reportedly show the successful use of activation tagging in tomato to identify genes implicated in plant growth and development, but that the various publications by the Walden *et al.* lab relating to these results were subsequently retracted (page 6, last paragraph of the Remarks). This argument is not found to be persuasive for the reasons of record (see the Office action mailed 8 October 2004, page 5, 3<sup>rd</sup> paragraph).

Applicants argue that Walden *et al* teaches the selection of cells for growth due to the presence of an activated gene. Applicants argue that Walden does not teach the creation of transgenic plants and then screening those plants for phenotypes that are due to gene activation, which is disclosed by the present invention. Applicants argue that the Examiner stated that Walden *et al* taught promoter insertion, not the use of an

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enhancer as claimed in the present invention. Applicants argue that given the inadequacies of the Walden *et al* reference, one skilled in the art would not have had a reasonable expectation of success from the combined teachings of Walden *et al* and Jones *et al* that activation tagging would be successful in tomato (page 7, 2<sup>nd</sup> paragraph of the Remarks). In response to Applicants' arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). At figure 1 on page 1523, Walden *et al* teaches the expression vector recited at instant claim 20(i). At page 1522, right column, 3<sup>rd</sup> paragraph, Walden *et al* teach that the idea of using such a T-DNA as a tag is that following insertion into the plant genome the multiple enhancers will activate the expression of flanking plant genes and that the plasmid allows rescue of flanking sequences with ease. Hence, Walden *et al* teaches how to use the expression vector to identify, isolate and characterize genes the transcription of which was enhanced by said enhancer. Walden *et al* teaches identifying genes that modify traits such as internode length and plant height (pages 1523-1524). Applicants' arguments that the teachings of Walden *et al* are inadequate and that one skilled in the art would not have had a reasonable expectation of success are not found to be persuasive because one of skill in the instant art would have recognized that methods applicable in tobacco are usable with other plants in other solinaceous plants such as tomato, potato and petunia.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR § 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. No claims are allowed.

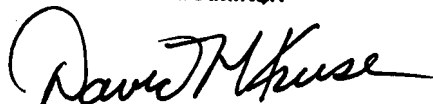
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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

DAVID H. KRUSE, PH.D.  
PRIMARY EXAMINER



David H. Kruse, Ph.D.  
9 May 2007

11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

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